

1                                   **Pet House**

2  
3                                   **Field of Invention**

4    The present invention relates to a pet house made of paper.

5  
6    **Background of Invention**

7    Referring to Figure 10, a conventional pet house made of paper includes a  
8    house-shaped box 90 and a roof 92.    The house-shaped box 90 includes  
9    a front wall 93, a rear wall 94 and two lateral walls 95.    The front wall  
10   93 defines a door 96.    Each of the lateral walls 95 defines a plurality of  
11   windows 91.    The front wall 93 and the rear wall 94 both include a  
12   triangular upper portion on which the roof 92 is mounted.    However, as  
13   shown, the roof 92 is very likely to deform because of its own weight and  
14   lack of support in the middle.

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16   The present invention is therefore intended to obviate or at least alleviate  
17   the problems encountered in prior art.

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19   **Summary of Invention**

20   It is the primary objective of the present invention to provide a robust pet  
21   house made of paper.

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23   According to the present invention, a pet house made of paper includes a  
24   house-shaped box, at least one reinforcement device and a roof.    The  
25   house-shaped box includes a front wall defining a door, a rear wall and  
26   two lateral walls.    The front and rear walls both include an upper portion

1 extending above the lateral walls. The reinforcement device is mounted  
2 on the lateral walls. The roof is mounted on the upper portions of the  
3 front and rear walls and the reinforcement device.

4  
5 Other objects, advantages and novel features of the invention will become  
6 more apparent from the following detailed description in conjunction  
7 with the attached drawings.

#### 8 9 **Brief Description of Drawings**

10 The present invention will be described via detailed illustration of  
11 embodiments referring to the drawings.

12  
13 Figure 1 is a perspective view of a pet house made of paper according to a  
14 first embodiment of the present invention.

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16 Figure 2 is an exploded view of the pet house of Figure 1.

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18 Figure 3 is a cross-sectional view taken along a line 3-3 in Figure 1.

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20 Figure 4 is a cross-sectional view taken along a line 4-4 in Figure 1.

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22 Figure 5 shows a paperboard of which a reinforcement device of the pet  
23 house of Figure 2 is made.

24  
25 Figure 6 is an exploded view of a pet house made of paper according to a  
26 second embodiment of the present invention.

1 Figure 7 is an exploded view of a pet house made of paper according to a  
2 third embodiment of the present invention.

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4 Figure 8 is a cross-sectional view of the pet house of Figure 6.

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6 Figure 9 shows a paperboard of which a reinforcement device of the pet  
7 house of Figure 7 is made.

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9 Figure 10 is a perspective view of a pet house made of paper according to  
10 prior art.

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## 12 **Detailed Description of Embodiments**

13 Referring to Figure 1, according to a first embodiment of the present  
14 invention, a pet house made of paper includes a house-shaped box 10 and  
15 a roof 20.

16

17 Referring to Figure 2, the box 10 includes a front wall 11, a rear wall 12  
18 and two lateral walls 13. The front wall 11 and the rear wall 12 both  
19 extend above the lateral walls 13 so as to support the roof 20. The front  
20 wall 11 defines a door 14. Each lateral wall 13 includes a plurality of  
21 windows 17 defined therein.

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23 An arched spacer 15 is attached to the front wall 11 around the door 14.

24 A U-shaped frame 16 is attached to the front wall 11. Between the  
25 arched spacer 15 and the U-shaped frame 16 is defined a space W1 for  
26 receiving a shutter 40 for shutting the door 14. The shutter 40 defines a

1 slot 41 so as to facilitate operation thereof.

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3 The roof 20 includes two ribs 22 attached thereto so as to enhance its  
4 rigidity. The roof 20 is put on the front wall 11 and the rear wall 12.  
5 Referring to Figure 4, the ribs 22 are outside the box 10. The spacer 15  
6 is at least as thick as the ribs 22. Thus, the spacer 15 keeps the shutter  
7 40 from front one of the ribs 22. Hence, smooth operation of the shutter  
8 40 is ensured.

9

10 To prevent the roof 20 from deforming because of its own weight, a  
11 reinforcement device 30 is used between the box 10 and the roof 20. In  
12 detail, the roof 20 is supported on the reinforcement device 30, and the  
13 reinforcement device 30 is installed on the lateral walls 13.

14

15 Figure 5 shows a paperboard of which the reinforcement device 30 is  
16 made. The paperboard includes a central rectangular strip 32, two  
17 connectors 33 extending from two sides of the central rectangular strip 32  
18 and two lateral rectangular strips 34 extending from the other sides of the  
19 central rectangular strip 32. Each lateral rectangular strip 34 includes  
20 two flanks 35 each defining a slit 36.

21

22 To form the reinforcement device 30, the connectors 33 are folded  
23 towards each other. The lateral rectangular strips 34 are folded towards  
24 each other until they contact the connectors 33. The flanks 35 of each  
25 lateral rectangular strip 34 are moved towards each other until they  
26 contact the connectors 33. Each flank 35 of each lateral rectangular strip

1 34 is adhered to one connector 33. Thus, the reinforcement device 30 is  
2 formed. One connector 33 and two flanks 35 make a rib 31 as shown in  
3 Figure 2.

4  
5 Referring to Figure 2, the slits 36 receive the lateral walls 13. Each  
6 lateral wall 13 defines two slits 131 for receiving the ribs 31. Thus, the  
7 reinforcement device 30 is kept on the lateral walls 13.

8  
9 Figure 6 shows a pet house made of paper according to a second  
10 embodiment of the present invention. The second embodiment is  
11 identical to the first embodiment except for including two reinforcement  
12 devices 30 instead of one.

13  
14 Figures 7~9 show a pet house made of paper according to a third  
15 embodiment of the present invention. The third embodiment is identical  
16 to the first embodiment except for including a reinforcement device 30'  
17 instead of the reinforcement device 30.

18  
19 Figure 9 shows a paperboard of which the reinforcement device 30' is  
20 made. The paperboard includes a central rectangular strip 32' defining  
21 two slots 32a, two connectors 33' extending from two sides of the central  
22 rectangular strip 32' and two lateral rectangular strips 34' extending from  
23 the other sides of the central rectangular strip 32'. Each connector 33'  
24 includes a first portion 33a, a second portion 33b, a third portion 33c and  
25 a fourth portion 33d shaped as a tongue. Each lateral rectangular strip  
26 34' includes two flanks 35' each defining a slit 36.

1 To form the reinforcement device 30', the connectors 33' are folded  
2 towards each other. The third portion 33c of each connector 33' is  
3 folded towards the first portion 33a of the same. The fourth portion 33d  
4 of each connector 33' is inserted in one slot 32a. The lateral rectangular  
5 strips 34' are folded towards each other until they contact the trapezoidal  
6 strips 33'. The flanks 35' of each lateral rectangular strip 34' are moved  
7 towards each other. An end of each flank 35' of each lateral rectangular  
8 strip 34' is put between and adhered to the first portion 33a and the third  
9 portion 33c of one connector 33'. Thus, the reinforcement device 30 is  
10 formed. One connector 33' and two flanks 35' make a rib 31' as shown  
11 in Figure 7.

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13 The present invention has been described via detailed illustration of three  
14 embodiments. Those skilled in the art can derive variations from the  
15 embodiments without departing from the scope of the present invention.  
16 Therefore, the embodiments shall not limit the scope of the present  
17 invention defined in the claims.

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